

EXHIBIT 116

UNITED STATES DISTRICT COURT
NORTHERN DISTRICT OF CALIFORNIA
SAN FRANCISCO DIVISION

RICHARD KADREY, et al.,)
)
Individual and)
Representative Plaintiffs,) 3:23-cv-03417-VC
vs.)
)
META PLATFORMS, INC., a)
Delaware corporation,)
)
Defendant.)

VIDEO-RECORDED DEPOSITION UPON ORAL EXAMINATION OF
EMILY BENDER, Ph.D.

****CONFIDENTIAL TESTIMONY****

****Page 195 Line 4 through Page 198 Line 4****

9:20 A.M.

FEBRUARY 25, 2025

1215 FOURTH AVENUE, SUITE 1350

SEATTLE, WASHINGTON

REPORTED BY: CARLA R. WALLAT, CRR, RPR
WA CCR 2578, OR CSR 16-0443, CA CSR 14423

Page 1

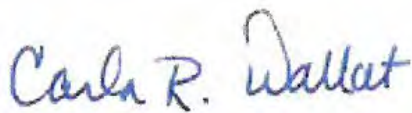
1 several times, "On the Dangers of Stochastic Parrots, 11:24AM
2 Can Language Models Be Too Big." 11:24AM
3 A. Yes. 11:25AM
4 Q. Could you describe briefly what you mean by 11:25AM
5 "stochastic parrots"? 11:25AM
6 A. Yes. So stochastic parrots is a phrase that I 11:25AM
7 actually coined as we were writing that paper. And it 11:25AM
8 is a way to make vivid what's happening with the output 11:25AM
9 of a large language model when it is used to synthesize 11:25AM
10 text. This is before I came up with the phrase 11:25AM
11 "synthetic text extruding machines" which describes the 11:25AM
12 same thing. 11:25AM
13 So "parrot" there references the English verb 11:25AM
14 to "parrot," which we use often to refer to repeating 11:25AM
15 something without understanding it. But "stochastic" 11:25AM
16 means randomly according to a probability distribution. 11:25AM
17 And so what's coming out of a large language model is 11:25AM
18 not necessarily directly something that was in the 11:25AM
19 training data. 11:25AM
20 And at the same time, it's not new ideas, but 11:25AM
21 it is a stochastic remix. It's not even ideas, it's 11:25AM
22 just collections of words that we interpret to be ideas 11:25AM
23 and it's a stochastic remix of what was in the training 11:25AM
24 data. 11:25AM
25 Q. When text is generated by a large language 11:26AM

REPORTER'S CERTIFICATE

I, CARLA R. WALLAT, CCR, CSR, RPR, CRR, the undersigned
Certified Court Reporter, authorized to administer oaths and
affirmations in and for the states of Washington (2578),
Oregon (16-0443), and California (14423) do hereby certify:

That the sworn testimony and/or proceedings, a
transcript of which is attached, was given before me at the
time and place stated therein; that any and/or all witness(es)
were duly sworn to testify to the truth; that the sworn
testimony and/or proceedings were by me stenographically
recorded and transcribed under my supervision. That the
foregoing transcript contains a full, true, and accurate
record of all the sworn testimony and/or proceedings given and
occurring at the time and place stated in the transcript; that
a review of which was not requested; that I am in no way
related to any party to the matter, nor to any counsel, nor do
I have any financial interest in the event of the cause.

WITNESS MY HAND AND DIGITAL SIGNATURE this 6th day of
March 2025.



CARLA R. WALLAT, RPR, CRR

Washington CCR #2578, Expires 1/5/2026

Oregon CSR #16-0443, Expires 9/30/2027

California CSR #14423, Expires 1/31/2026